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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,396	11/26/2001	Werner Kriechbaum	DE9-2000-0096 (270)	7850

40987 7590 10/22/2004

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EXAMINER	
VO, HUYEN X	

ART UNIT	PAPER NUMBER
2655	

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/994,396	KRIECHBAUM ET AL.	
	Examiner	Art Unit	
	Huyen Vo	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/11/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Glickman et al. (US Patent No. 6076059).

3. Regarding claims 1 and 17, Glickman et al. disclose a method of improving speech recognition and a machine-readable storage, having stored thereon a computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of: taking a realization and a first representation for said realization (*elements 310 and 330 in figure 3*); performing a speech recognition on said realization thereby producing a second representation for said realization (*Recognizer 302 in figure 3*); aligning said first representation and said second representation (*Aligner 303 in figure 3*); selecting single words from said first representation and corresponding aligned single words from said second representation and pairing said aligned single words, wherein said first and said second representations are different (*unaligned portions 502 in figures 3 or 6*); and updating a word database using said selected paired words together with said corresponding aligned realization (*unaligned*

portions 502 are reprocessed at steps 301-305 in figure 3. At step 301, V-LM is rebuilt; col. 4, lines 35-56).

4. Regarding claims 6 and 22, Glickman et al. disclose a method of improving speech recognition and a machine-readable storage, having stored thereon a computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of: taking a realization and a first representation for said realization (*elements 310 and 330 in figure 3*); performing a speech recognition on said realization thereby producing a second representation for said realization (*Recognizer 302 in figure 3*); aligning said first representation and said second representation (*Aligner 303 in figure 3*); selecting single words from said first representation and corresponding aligned single words from said second representation and pairing said aligned single words, wherein said first and said second representations are identical (*col. 5, lines 1-42 or referring to elements 305 and 325 in figure 3*); and updating a pronunciation database using said selected paired words together with said corresponding aligned realization (*acoustic models 325 in figure 3 are updated*).

5. Regarding claim 11, Glickman et al. disclose a system for improving speech recognition of a speech recognizer, said system comprising: an aligner configured to align a first representation and a second representation produced by said speech recognizer (*Aligner 303 in figure 3*); a classifier configured to compare said aligned first representation with said aligned second representation (*figure 4 or col. 3, line 59 to col.*

4, line 12, alignment scores for every possible alignment are used to determine the best alignment); a selector configured to select corresponding single word pairs from said aligned first representation and said aligned second representation (*elements 304-305 in figure 3*).

6. Regarding claims 2, 7, 18 and 23, Glickman et al. further disclose that the selecting step uses speech recognition information derived from said speech recognition (*figure 6, segments supplied from the output of the recognizer and the text source are aligned and compared before separating aligned segments from unaligned segments*).

7. Regarding claims 3, 8, 19, and 24, Glickman et al. further disclose that the aligning step reveals time information corresponding to the alignment between the realization and the first representation (*elements 303 and 332 and col. 4, ln. 28-43*).

8. Regarding claims 4, 9, 20, and 25, Glickman et al. further disclose that the updating step further comprising: comparing the recognition quality of said speech recognition of said realization with the recognition quality of a corresponding single word entry existing in said word database (*steps 303-305 in figure 3 align and compare the result of speech recognition and input text source to determine if the word pairs are aligned or unaligned. The input text source is also processed and stored in V-LM*).

9. Regarding claims 5, 10, 21, and 26, Glickman et al. further disclose that the first and the second representations are comprised of segments (*figure 4*), said comparing step further comprising: tagging said segments of said first and said second representations where both said first and said second representations consist of a single word (*figure 4*).

10. Regarding claims 12 and 13, Glickman et al. further disclose that the first representation and said second representation are different (*element 502 in figure 6*), and the first representation and said second representation are identical (*element 501 in figure 6*).

11. Regarding claim 14, Glickman et al. further disclose means for updating a word database or a pronunciation database using single word pairs selected by the selector (*at element 305, aligned word pairs are used to update the acoustic model 325 (pronunciation database) and unaligned word pairs 502 are used to update the V-LM 320 or word database*).

12. Regarding claim 15, Glickman et al. further disclose that the aligner further comprising: means for generating time information corresponding to time alignment between said first representation and said second representation (*col. 4, ln. 13-43*).

13. Regarding claim 16, Glickman et al. further disclose that the first and said second representations comprise segments (*figure 4*), said classifier further comprising: means for tagging said segments of said first representation and said second representation where said first representation and said second representation consist of a single word (*figure 4*).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Both Brandow et al. (US Patent No. 6064957) and Ferrieux et al. (US Patent No. 6466907) disclose a method for improved speech recognition that are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen Vo whose telephone number is 703-305-8665. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

SUSAN MCFADDEN
PRIMARY EXAMINER

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Huyen X. Vo September 8, 2004

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